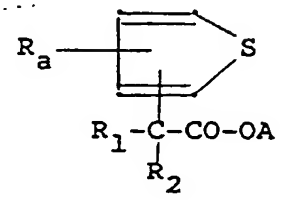
Patent Claims according to SI 9011744 B

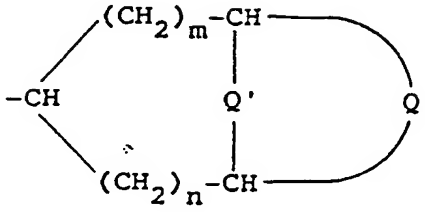
1. Compounds of the formula



(I),

in which

A represents the group



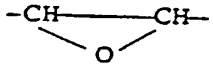
(II)

wherein

m and n independently of one another denote 1 ~~or 2~~

Q represents one of the double-bonding groups

$-CH_2-CH_2-$, $-CH_2-CH_2-CH_2-$, $-CH=CH-$,



and

Q' represents the group =NR or the group =NRR', wherein R denotes H or an optionally halogen-substituted or hydroxy-substituted $C_1$-$C_4$-alkyl radical, R' denotes a $C_1$-$C_4$-alkyl radical and R and R' together may also form a $C_4$-$C_6$-alkylene radical, and wherein, in the case of quaternary compounds, one equivalent of an anion ($X^-$) opposes the positive charge of the N atom,

$R_1$ represents a thienyl, phenyl, furyl, cyclopentyl or cyclohexyl radical, wherein these radicals may also be methyl-substituted, thienyl and phenyl may also be fluoro-substituted or chloro- substituted,

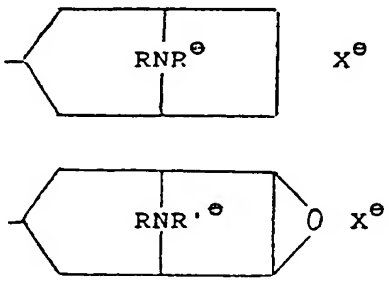
$R_2$ represents hydrogen, OH, $C_1$-$C_4$-alkoxy or $C_1$-$C_4$-alkyl,

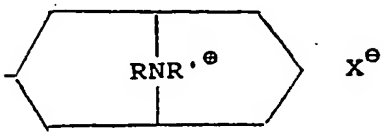
$R_3$ represents H, F, Cl or $CH_3$ ~~and, if =NR denotes a secondary or tertiary amino group, also the acid addition salts.~~

2. Compounds according to claim 1, wherein $R_1$ represents 2-thienyl.

3. Compounds according to claim 1 or 2, wherein $R_2$ represents OH.

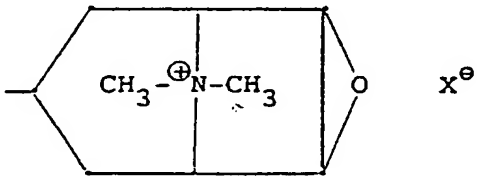
4. Compounds according to claim 1, 2 or 3, wherein A represents



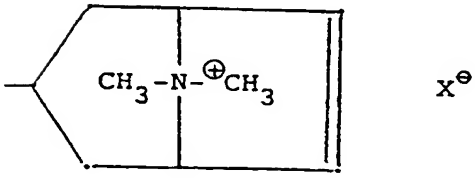




wherein R and $X^-$ have the above meaning and R' has the above meaning except for hydrogen.

5. Compounds according to claims 1 to 4, in which $R_1$ denotes 2-thienyl and A represents the radical




or



in the 3α-form, wherein $X^-$ is one equivalent of an anion, preferably $Br^-$ or $CH_3SO_3$.

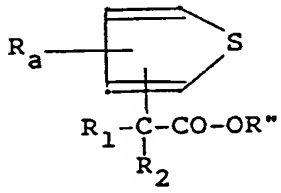
~~6.~~ Medicaments characterised in that they contain a compound according to claims 1, 2, 3, 5 or 11 in addition to conventional auxiliaries and/or excipients.

7. Use of compounds according to claims 1 to 5 in the treatment of diseases.

8. Use of compounds according to claims 1 to 5 in the preparation of anti-cholinergic medicaments.

9. Use of compounds according to claims 1 to 5 in the preparation of medicaments for the treatment of respiratory tract diseases and sinus bradycardia.

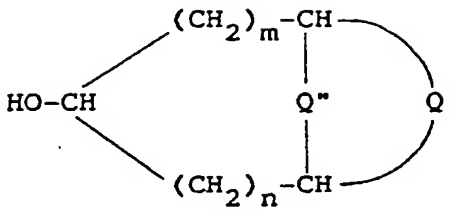
6. ~~10.~~ Process for the preparation of compounds according to claims 1 to 5, characterised in that an ester of the formula or 7



(IV),

wherein R" represents a $C_1$-$C_4$-alkyl radical and $R_1$, $R_2$ and $R_a$ have the above meaning, is transesterified using an

amino alcohol of the formula



(V)

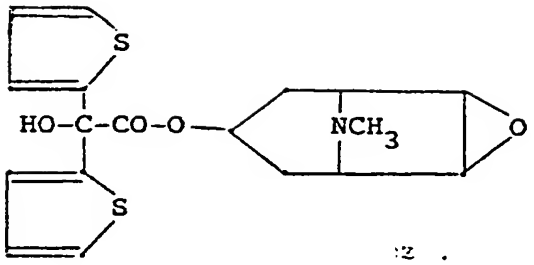
wherein m, n and Q have the above meaning and Q" represents =NR or =NH, in an inert organic solvent or in a melt, in the presence of a transesterification catalyst, and the compound obtained is optionally quaternised

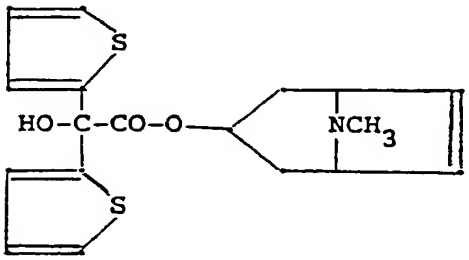
a) if Q" denotes =NR (R ≠ H), using a reactive monofunctionalised derivative Z-($C_1$-$C_4$-alkyl) of an alkane (Z = leaving group)

or is optionally substituted and quaternised

b) if Q" denotes =NH, using a terminally disubstituted alkane Z-($C_4$-$C_6$-alkylene)-Z without isolation of intermediates.

7. ~~11.~~ Compounds of the formula





in the 3α-form ~~and their acid addition salts and~~ as their methobromides or methomethanesulphonates.

~~12. Use of compounds of the formula I, wherein Q'~~ denotes =NR, and their salts as intermediate products for the preparation of the corresponding quaternary compounds of the formula I.